

Amendments to the Specification:

Please replace the paragraphs beginning on page 2, line 23 with the following rewritten paragraphs:

-- ~~Fig. 1~~ Fig. 1a is a side view of an ink jet chamber of the present invention positioned upon a substrate, showing the creation of features by exposing a photo-imageable material through a first mask;

~~Fig. 1a~~ Fig. 1b is a side view of an ink jet chamber of the present invention situated upon a substrate, showing the creation of features by exposing a photo-imageable material through a second mask;

~~Fig. 1b~~ Fig. 1c is a side view of an ink jet chamber of the present invention situated upon a substrate, showing finished features after curing and removal of uncured and unexposed photo-imageable material;

~~Fig. 2~~ Fig. 2a is a side view of an ink jet chamber of the present invention, situated upon a substrate, showing multiple ink jet chambers with substantially similar chamber volumes and output nozzles;

~~Fig. 2a~~ Fig. 2b is a side view of an ink jet chamber of the present invention, situated upon a substrate, showing multiple ink jet chambers with substantially different chamber volumes and output nozzles;

~~Fig. 3~~ Fig. 3a is a side view of an ink jet chamber of the present invention where an internal member provides a plurality of functions;

~~Fig. 3a~~ Fig. 3b is an end view of the ink jet chamber of the present invention taken along line ~~3a-3a of Fig. 3~~ 3b-3b of Fig. 3a; --

Please replace the paragraphs beginning on page 3, line 13 with the following rewritten paragraphs:

-- ~~Fig. 5~~ Fig. 5a is a side view of an ink jet chamber of the present invention in which a collimated light source creates plurality of geometrically shaped structures; and

~~Fig. 5a~~ Fig. 5b is a side view of an ink jet chamber of the present invention in which an uncollimated light source creates plurality of geometrically shaped structures by exposing through a mask. --

Please replace the paragraph beginning on page 3, line 21 with the following rewritten paragraph:

-- Referring to ~~Fig. 1~~ Fig. 1a, there is shown a side view of an ink jet chamber assembly 10 situated upon a substrate 20, which illustrates the creation of vertical structures (hereafter called a chamber wall) 30 by exposing a photo-imageable material 40 through a first mask 50. First mask 50 is designed to both block and pass the exposing light 60. The exposing light 60 that is passed by first mask 50 prepares the exposed portion of the photo-imageable material 40 through its entire thickness down to the substrate 20. This produces an exposed photo-imageable material that becomes the chamber walls 30 horizontally adjacent to the thermal element 70. The exposing light 60 used for exposing the photo-imageable material 40 through the first mask 50 can be variably adjustable in intensity, dose, and wavelength for the purpose of modifying the resultant structures produced in the photo-imageable material 40. In regards to wavelengths of the exposing light 60, those wavelengths can consist of a plurality of conditions including fixed, variable, single, dual, multiple or mixed. --

Please replace the paragraph beginning on page 4, line 18 with the following rewritten paragraph:

-- Referring now to ~~Fig. 1a~~ Fig. 1b, there is illustrated a side view of an ink jet chamber assembly 10, of the present invention. It is positioned upon a substrate 20, showing the creation of a horizontal structure (hereafter called a chamber roof) 80 by exposing the photo-imageable material 40 (from ~~Fig. 1~~ Fig. 1a) through a second mask 90. It is apparent to those skilled in the art that the first mask 50 has been discarded and replaced by second mask 90. Second mask 90 is designed to both block and pass the exposing light 60. The light that is passed by second mask 90 prepares the photo-imageable material 40 for producing an exposed photo-imageable material 40, which becomes the chamber roof 80 positioned vertically above and adjacent the thermal element 70. This second exposure is preferably performed immediately following the first exposure described in ~~Fig. 1a~~ Fig. 1b. Alternatively, for robustness, a short baking under heat is performed prior to second exposure. The exposing light 60 used for exposing the photo-imageable material 40 through the second mask 90 can be variably adjustable in intensity, dose, and wavelength for the purpose of modifying the resultant structures produced in the photo-imageable material 40 (from ~~Fig. 1~~ Fig. 1a). In regards to wavelengths of the exposing light 60, those

wavelengths can consist of a plurality of conditions including fixed, variable, single, dual, multiple or mixed. --

Please replace the paragraphs beginning on page 5, line 12 with the following rewritten paragraphs:

-- Still referring to ~~Fig. 1a~~ Fig. 1b, a shaded area that represents unexposed photo-imageable material **100** remains (formerly **40** at ~~Fig. 1~~ Fig. 1a). It will be instructive to note that a semi-finished ink jet chamber exists with both exposed chamber walls **30** and an exposed chamber roof **80**, and that the aforementioned controlled variability of the exposing light **60** is used to control both the height of the chamber walls **30** and the thickness of the chamber roof **80**, as described hereinabove. The lack of any exposure over the thermal element **70** creates by default an ink jet nozzle **110**. At this point, the chamber walls **30** and chamber roof **80** are baked to complete the hardening process for the exposed photo-imageable material **40**, but leaves any unexposed photo-imageable material **100** unaffected and removable. The removal of the unexposed photo-imageable material is accomplished by flushing with a solvent such as cyclopentanone. After flushing is complete, a final cure at a temperature of at most 200 degrees Centigrade finalizes the ink jet chamber assembly **10** drawn in ~~Fig. 1b~~ Fig. 1c. --

Referring to ~~Fig. 1b~~ Fig. 1c, there is illustrated a side view of the completed and processed ink jet chamber assembly **10** of the present invention. It is positioned upon a substrate **20**, and shows chamber walls **30** upon which is situated a chamber roof **80** and an ink jet nozzle **110** created by washing out the unexposed photo-imageable material **100** (the process described in the previous paragraph). The ink jet nozzle **110** is shown disposed substantially directly above and adjacent the thermal element **70**, and adjacent to a vertical support member **120**. It is instructive to note that a supply port **160** is subsequently put into the substrate **20** for permitting inks or fluids to pass into the ink jet chamber assembly **10**.

Referring now to ~~Fig. 2~~ Fig. 2a, there is shown a side view of a plurality of ink jet chambers **10**. The process as described previously was, for descriptive clarity, described for creating a single ink jet chamber **10**. However, the present invention also provides the ability to produce a plurality of ink jet chamber assemblies **10** upon the same substrate **20**, which greatly enhances the

reduced complexity, reduced manufacturing steps and lower costs achieved by the methods described in this invention. Those skilled in the art will readily be able to apply the above teachings to the plurality of ink jet chambers **10**. Additionally, it is instructive to note that ~~Fig. 2~~ Fig. 2a details a plurality of ink jet chamber assemblies **10** with essentially the same internal structure and volumes with regards to one another.

Referring next to ~~Fig. 2a~~ Fig. 2b, there is shown the ink jet chamber assemblies **10** situated on the substrate **20**, and having different internal structure and volumes with respect to one another, such as nozzle dimensions and chamber volumes. This illustrates how the present invention can be modified by using different masks along with different exposures to control the formation of different features in a plurality of ink jet chamber assemblies **10**.

Referring next to ~~Figs. 3 and 3a~~ Figs. 3a and 3b, there is illustrated a finished and cured ink jet chamber assembly **10** situated on substrate **20**. A vertical support member **120** is a support for the chamber roof **80**, but it can also be manufactured with an additional function in mind such as filtering an impurity such as dust that may be suspended within a supplied ink or fluid (not shown). This filtering function would be engineered in a manner that integrates the filter as a plurality of posts **135** across the ink jet chamber with predetermined spacing between the posts **135** for the blocking of impurities and drawn in ~~Fig. 3a~~ Fig. 3b. Supplied inks or fluids (not shown) would be sourced from a reservoir (not shown) through the supply port **160**. Alternatively, posts **135** may be a single integrated wall composed of a porous material for permitting the filtering. Additionally, post **135** may serve as baffles. --

Please replace the paragraph beginning on page 7, line 12 with the following rewritten paragraph:

-- Referring next to ~~Fig. 5~~ Fig. 5a, the same effect can be achieved by using a collimated light source **200** to directly expose the photo-imageable material **40** (referring back to ~~Fig. 4~~ Fig. 1a) or using an un-collimated light source **210** through a third mask **190** detailed in ~~Fig. 5a~~ Fig. 5b. --